KF/4K4 2781 /

PTO/SB/17(12-98)
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FEE TRANSMITTAL FOR FY 1999

TOTAL AMOUNT OF PAYMENT ($)   300.00

Complete if Known:
Application No.   08/934,968
Filing Date   9/22/97
First Named Inventor   Bell
Group Art Unit   2781
Examiner Name   Phan, R.
Attorney Docket No.   42390.P4925

METHOD OF PAYMENT (check one)

1. [   ]   The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number   _____
Deposit Account Name   _____

[   ]   Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

2.   X   Payment Enclosed:
X   Check
____   Money Order
____   Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Fee ($)	Small Entity Fee Code	Fee ($)	Fee Description	Fee Paid
101	760	201	380	Utility application filing fee	____
106	310	206	155	Design application filing fee	____
107	480	207	240	Plant filing fee	____
108	760	208	380	Reissue filing fee	____
114	150	214	75	Provisional application filing fee	____

SUBTOTAL (1) $ 0

2. EXTRA CLAIM FEES

	Extra Claims		Fee from below	Fee Paid
Total Claims ____	– 20** = ____	X ____	= ____
Independent Claims ____	– 3** = ____	X ____	= ____
Multiple Dependent			____ = ____

**Or number previously paid, if greater; For Reissues, see below.

Large Entity Fee Code	Fee ($)	Small Entity Fee Code	Fee ($)	Fee Description
103	18	203	9	Claims in excess of 20
102	78	202	39	Independent claims in excess of 3
104	260	204	130	Multiple dependent claim, if not paid
109	78	209	39	**Reissue independent claims over original patent
110	18	210	9	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) $ 0

FEE CALCULATION (continued)
3. ADDITIONAL FEES

Patent fees are subject to annual revisions. Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid.
See Forms PTO/SB/09-12

Large Entity		Small Entity			
Fee Code	Fee ($)	Fee Code	Fee ($)	**Fee Description**	**Fee Paid**
105	130	205	65	**Surcharge - late filing fee or oath**	_____
127	50	227	25	**Surcharge - late provisional filing fee or cover sheet**	_____
139	130	139	130	**Non-English specification**	_____
147	2,520	147	2,520	**For filing a request for reexamination**	_____
112	920*	112	920*	**Requesting publication of SIR prior to Examiner action**	_____
113	1,840*	113	1,840*	**Requesting publication of SIR after Examiner action**	_____
115	110	215	55	**Extension for response within first month**	_____
116	380	216	190	**Extension for response within second month**	_____
117	870	217	435	**Extension for response within third month**	_____
118	1,360	218	680	**Extension for response within fourth month**	_____
128	1,850	228	925	**Extension for response within fifth month**	_____
119	300	219	150	**Notice of Appeal**	_____
120	300	220	150	**Filing a brief in support of an appeal**	300.00
121	260	221	130	**Request for oral hearing**	_____
138	1,510	138	1,510	**Petition to institute a public use proceeding**	_____
140	110	240	55	**Petition to revive unavoidably abandoned application**	_____
141	1,210	241	605	**Petition to revive unintentionally abandoned application**	_____
142	1,210	242	605	**Utility issue fee (or reissue)**	_____
143	430	243	215	**Design issue fee**	_____
144	580	244	290	**Plant issue fee**	_____
122	130	122	130	**Petitions to the Commissioner**	_____
123	50	123	50	**Petitions related to provisional applications**	_____
126	240	126	240	**Submission of Information Disclosure Stmt**	_____
581	40	581	40	**Recording each patent assignment per property (times number of properties)**	_____
146	760	246	380	**For filing a submission after final rejection (see 37 CFR 1.129(a))**	_____
149	760	249	380	**For each additional invention to be examined (see 37 CFR 1.129(a))**	_____

Other fee (specify) _____ _____

Other fee (specify) _____ _____

SUBTOTAL (3) $ 300.00

*Reduced by Basic Filing Fee Paid

SUBMITTED BY:

Typed or Printed Name: Maria McCormack Sobrino

Signature *Maria McCormack Sobrino* **Date** July 29, 1999

Reg. Number 31,639   **Deposit Account User ID** 02-2666

06/08/99   - 2 -   PTO/SB/17 (12-98)
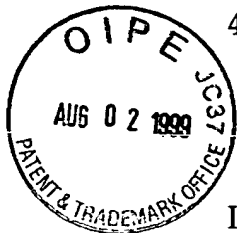
42390.P4925   Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:)	
)	Art Unit: 2781
Michael Bell)	
)	
Application No.: 08/934,968)	Examiner: Phan, R.
)	
Filed: September 22, 1997)	
)	
For: Method and Apparatus for)	
Providing and Embedding)	
Control Information in a Bus)	
System)	

APPEAL BRIEF
IN SUPPORT OF APPELLANT'S APPEAL
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Hon. Commissioner of
Patents and Trademarks
Washington, D.C. 20231

Sir:

The Appellant hereby submits this Brief in support of its appeal from a

final decision of the Examiner mailed April 12, 1999 in the above-referenced

application. The Appellant respectfully requests consideration of this Appeal

Brief by the Board of Patent Appeals and Interferences for allowance of the

above-referenced application.

I. REAL PARTY IN INTEREST

The invention was assigned to Intel Corporation of Santa Clara, California.

II. RELATED APPEALS AND INTERFERENCES

To the best of Appellant's knowledge, there are no appeals or interferences related to the present appeal which will directly affect, be directly affected by, or have a bearing on the Boards' decision.

III. STATUS OF CLAIMS

In the Final Office Action dated September 22, 1997, Claims 1-10 are rejected under 35 U.S.C. §103 as being unpatentable over Ward, U.S. Patent 5,448,708, (Ward) in view of Glassen, U.S. Patent 5,671,441, (Glassen). Claims 1-10 are subject of this appeal, and as they stand on appeal are given in Appendix .A.

IV. STATUS OF AMENDMENTS

The Present application as filed contained Claims 1-10. In an amendment filed February 22, 1999 Claims 3 and 7 were amended. A response filed February 22, 1999 has been considered, but has been deemed by the Examiner to not have overcome the reasons for rejection, except that the Examiner had indicated that a 35 U.S.C. § 112, second paragraph, rejection has

been withdrawn in view of the amendments to the claims by the Applicant on February 22, 1999.

V. SUMMARY OF THE INVENTION

The present invention provides for a system and method for sending device specific data in a bus transaction by preallocating a device configurable field, the contents of which are configurable by the device sending a request. Upon receipt of the request, the receiving device responds to the request, generates a reply, and copies the contents of the device configurable field into a corresponding field of the reply. The configuration of the request can be such that the field contents are meaningful only to the sending device as the receiving device simply copies the contents and sends it back. The reply, therefore, conveys back the same information in the corresponding field, thereby enabling the sending device to use the field for a variety of purposes.

Claims 1-10 are directed towards said system and method for sending device specific data in a bus transaction. Specifically, Claim 1 describes a .method for dynamically sending device data in a bus transaction using a device configurable data. To dynamically send device data in a bus transaction, a first device generates a request, which comprises a plurality of fields including a device configurable field containing device configurable data, and issues the request to a second device. The second device copies the received data in the device configurable field into a designated field of a generated reply and issues a reply.

VI. ISSUES

1.   Whether claims 1-10 are patentable under 35 U.S.C. § 103 in view of Ward and Glassen.

VII. GROUPING OF CLAIMS

With regard to the ground of rejection stated in issue (1), Claims 1-10 stand or fall together.

VIII. ARGUMENTS

A.   The Ward reference does not teach or disclose a first device sending a request to a second device, a request comprising a plurality of fields including a device configurable field containing device configurable data, and a second device copying a device configurable data from the device configurable field of the request into a designated field of the reply and issuing a reply.

The Ward reference describes a method and apparatus for transferring control data between first and second entities using a shared memory. When two entities are transferring data or commands, each entity enqueues and dequeues control elements, which convey control information such as requests, replies, events and errors between entities, for the transfer on the outbound pipe and the inbound pipe, respectively (see abstract; col. 3, lines 36-37). This local control information is, in part, control information generated at the entity and, in part, is surrogate control information stored by the other entity in shared memory that is accessible by both entities. Thus, before an entity begins

to enqueue or dequeue control elements, it retrieves the other entity's surrogate information as a single addressable block from shared memory and distributes it to its own local storage. Likewise, after an enqueue or dequeue of control elements, the entity assembles all of its locally generated control information and places it as a single addressable block to shared memory.

In reference to Claim 1 and similar subject matter recited in Claim 5, the Applicant claims "a first device generating a request comprising a plurality of fields including a device configurable field comprising device configurable data; a second device copying the data received in the device configurable field into a designated field of a plurality of fields of the reply." The final office action, mailed on April 12, 1999, states that the first device issuing a request to a second device and the second device issuing a reply to the first device, as set forth in Claim 1 and Claim 5, corresponds to writing the first surrogate control information from the first device to the shared memory for use by the second device, as disclosed in Ward (final office action, page 4).

However, the Ward reference does not disclose a first device issuing a request to a second device and the second device issuing a reply to the first •device. Ward describes a client entity which functions as a sending unit 102 and a server entity which functions as a receiving unit 108. A delivery support unit 118, which includes shared memory 106 and 112, is connected between sending unit 102 and receiving unit 108. Communications between sending unit 102 and receiving unit 108 are achieved using shared memories 106 or 102 (figure 1; col. 3, lines 48–63). No requests containing a device configurable field containing data written into by the first device, or replies containing a copy of the data received in the device configurable field of the request are generated or used.

Ward also describes an alternative method to transfer data between the client and the server by using a buffer 210 (col. 3, line 62-63). However, the reference still does not teach or disclose a first device issuing a request comprising a plurality of fields including a device configurable field, and the second device issuing a reply comprising a plurality of fields, one of which contains a copy of the data located in the device configurable field of the request. Ward's alternative method describes the transfer of data through the buffer, by sending unit 102 placing the address and length of the data into control element 204, and sending the same to receiving unit 108 via pipe 106 by placing it into a defined block of memory (col. 3, lines 60-67). No requests containing a device configurable field containing data written into by the first device, or replies containing a copy of the data received in the device configurable field of the request are generated or used.

Moreover, as noted above, the Ward reference does not disclose a first device generating a request comprising a device configurable field containing device configurable data. During a telephone interview with the Examiner on July 7, 1999, the Examiner stated that the device configurable data, as set forth in Claim 1 and Claim 5, corresponds to Ward's "control element." However, Ward discloses <u>two</u> control elements (figure 1, Control Element 104 and Control Element 116) and there is no teaching or disclosure that Control Element 104, which contains commands and control information (col. 3, lines 54-55), and Control Element 116, which contains sending data or an address of a buffer storage for data transfer (col. 4, lines 16-18), contain the same data that would result from the copy operation performed in Claim 1 and Claim 5, in fact the two control elements contain different data. Furthermore, there is no teaching or disclosure of performing a copy operation of Control Element 104 into Control Element 116.

Therefore, the Ward reference does not teach or disclose a first device issuing a request comprising a plurality of fields including the device configurable field and the second device generating a reply comprising a plurality of fields and copying the device configurable field into a designated field of the reply.

B. The combination of the Ward and Glassen references does not teach or disclose a first device sending a request to a second device, a request comprising a plurality of fields including a device configurable field containing device configurable data, and a second device copying a device configurable data from the device configurable field of the request into a designated field of the reply and issuing a reply.

The Glassen reference describes a method and apparatus for determining which components of an I/O configuration are shared by other components of the configuration. Glassen discloses a table of I/O channel path identifiers that contains a plurality of fields used to determine which channel path and I/O device address will be used when a subsequent instruction specifying the programmable subchannel is issued by the program (col. 6, lines 20-26). By noting which channel paths are used to obtain configuration-data records, which are stored in the program-designated location in main memory to identify the control unit of an I/O device (col. 6, lines 45–47), and examining the unique identifiers provided for I/O items, Glassen's mechanism can determine which I/O devices are accessible through the same control unit, and which control units provide access to the same I/O device.

The final office action states that Glassen discloses a device configuration field and that it would be obvious to combine the teachings of Glassen and

Ward because "it would provide the dynamical configuration for device in the computer system" (final office action, page 3). The Applicant fails to understand the motivation to combine the references as noted in the final office action as the references describe two different architectures and processes. However, even if there was a teaching to combine, the combination of Ward and Glassen, neither teaches nor discloses the claimed invention. The fields and configuration-data records in Glassen are not part of a request, including configuration data, issued by a first device or a reply issued by a second device, but are part of the of main memory and a table of I/O channel path identifiers. Thus, a first device does not store configuration data in a device configurable field of a request and a second device does not copy the configuration data into a corresponding field of the reply as set forth, for example, in Claim 1 and similarly provided for in Claim 5.

It follows that the combination of Ward and Glassen does not teach or disclose the claimed present invention, as Glassen does not cure the shortcomings of Ward. As noted above, Ward neither teaches nor discloses a first device generating a request comprising a plurality of fields including a device configurable field comprising device configurable data, the first device issuing the request to a second device generating a reply comprising a plurality of fields, the second device copying the data received in the device configurable field into a designated field of reply. Therefore, for the reasons noted above, claims 1-10 are distinguishable over the Ward and Glassen references.

Conclusion

The claimed present invention is neither taught nor disclosed by any of the cited references, alone or in combination. Therefore, the Applicant respectfully requests that all pending claims be allowed.

IX. FEE FOR FILING A NOTICE OF APPEAL

A check in the amount of $300.00 to cover the fee for filing a Notice of Appeal required under 37 C.F.R. 1.17(b) was previously submitted with a prior Notice of Appeal filed on July 9, 1999.

X. FEE FOR FILING A BRIEF IN SUPPORT OF APPEAL

Enclosed is a check in the amount of $300 to cover the fee for filing of a brief in support of an appeal required under 37 C.F.R 1.17 (c) and 1.192. This Brief is filed within two months of the previously filed Notice of Appeal.

XI. CHARGE OUR DEPOSIT ACCOUNT

If there are any further charges not accounted for herein, please charge them to our deposit account No. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: July 29, 1999

Maria McCormack Sobrino
Attorney for Applicant
Registration No. 31,639

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EXIBIT A

Claims presented on Appeal

1   1.   A method for dynamically sending device data in a bus transaction

2   comprising the steps of:

3   a first device generating a request comprising a plurality of fields

4   including a device configurable field comprising device configurable data;

5   said first device issuing the request to a second device;

6   said second device generating a reply comprising a plurality of fields;

7   said second device copying the data received in the device configurable

8   field into a designated field of the plurality of fields of the reply;

9   said second device issuing the reply to the first device.

1   2.   The method as set forth in claim 1, wherein the designated field is

2   located at a location in the reply that corresponds to a field location of the

3   device configurable field of the request.

1   3.   The method as set forth in claim 1, wherein the device configurable field

2   is used by the first device to store a transaction identification of a transaction

3   issued by the first device.

1   4.   The method as set forth in claim 3, further comprising the step of the first

2   device reading the designated field to determine the identification of the

3   request the reply corresponds to.

1   5.   A bus system comprising:

2   a bus

3   a first device coupled to the bus, said first device configured to issue a

4   request comprising a device configurable field comprising device configurable

5   data;

6   a second device coupled to the bus and configured to receive the request

7   and copy the device configurable data into a designated field of a reply and

8   issue the reply to the first device.

1   6.   The bus system as set forth in claim 5, wherein the designated field is

2   located at a location in the reply that corresponds to a field location of the

3   device configurable field of the request.

1   7.   The bus system as set forth in claim 5, wherein the device configurable

2   field is used by the first device to store a transaction identification of a

3   transaction issued by the first device.

1   8.   The bus system as set forth in claim 7, further comprising the step of the

2   first device reading the designated field to determine the identification of the

3   request the reply corresponds to.

1   9.   A bus comprising a plurality of bus lines configured to convey device

2   configurable data from a first device to a second device during transmission of

3   a request and further configured to convey the device configurable data from

4   the second device to the first device during transmission of a reply to the

5   request.

1   10.   The bus as set forth in claim 9, wherein the device configurable data

2   comprises a transaction identification.